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ON THE VIABILITY OF AGRICULTURAL DEVELOPMENT BANKS: BANCO AGRICOLA DE LA REPUBLICA DOMINICANA

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Abstract

This report documents the performance of the Banco Agricola (BAGRICOLA) of the Dominican Republic, highlighting features that have weakened its autonomy and financial viability. The macroeconomic environment within which the bank has operated in the mid to late 1980s is reviewed in detail along with the changing structure of the country's financial markets. The bank's financial performance is analyzed during the 1980s underlining the principal factors behind its shortage of liquidity and operational losses. A systematic analysis of the non-performing loan portfolio is undertaken, followed by recommendations to improve its financial viability for the future.

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ON THE VIABILITY OF AGRICULTURAL DEVELOPMENT BANKS: BANCO AGRICOLA DE LA REPUBLICA DOMINICANA[1]

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I. Introduction

The Banco Agricola of the Dominican Republic (BAGRICOLA) reflects the classic features of an unviable agricultural development bank. This lack of viability has grown out of an unfavorable macroeconomic environment that has penalized the bank's earnings as well as of agricultural sector policies that have penalized the bank's customers. Government and international donor targeting of credit to high-risk and default-prone clientele have further weakened incentives for the bank to incorporate internal administrative procedures and practices to protect its financial viability. This report sets forth evidence on

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[1] This paper was prepared for the Office of External Review and Evaluation (ORE) of the Inter-American Development Bank (IDB), as background material for the Study of the IDB's Experience with Institutional Strengthening Assistance, under the direction of Francisco Guzmán. The authors are solely responsible for the views expressed here, which may or may not be shared by the sponsoring institution.

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BAGRICOLA's recent performance and highlights the features that have weakened its autonomy and viability.

The first section of the report examines the deteriorating macroeconomic environment and increasing fiscal and current account deficits that have characterized the Dominican economy from the mid-1980s to the present. A worsening environment and accelerating inflation have affected the performance of BAGRICOLA as well as of its clientele. This section is followed by an analysis of the highly fragmented financial markets of the country, in which BAGRICOLA plays a role as one of the more specialized institutions in these markets. The growing disarray of these financial markets is evident from the mid-1980s to the present, through the uncontrolled expansion of numerous financial institutions and unregulated participants in these markets including holding companies for disparate financial intermediaries (groups). The lack of effective prudential supervision of financial institutions stands out, along with sporadic efforts to control interest rates on deposits and selected loan activities. Increasing reserve requirements on bank deposits have further repressed the regulated financial intermediaries.

The third section sets forth a financial analysis of BAGRICOLA itself. Operating losses highlight its recent record, with a growing delinquent portfolio of loans exacerbated by an erosion of the real value of its outstanding portfolio through the impact of inflation. Inflation has further reduced the value of interest earnings based on negative real rates of interest. As a result, the bank has been experiencing growing liquidity shortages and has found it difficult to continue its on-lending from its shrinking capital base.

Next, systematic analysis of the non-performing loan portfolio of BAGRICOLA is undertaken. This section underscores the inappropriate and misleading delinquency and default indicators used by the bank. The seriousness of the delinquency problem has been systematically underestimated, leading bank officials to a false sense of security. The role of the government and international donors such as the IDB in aggravating this situation is highlighted. The final section summarizes the findings and includes a set of recommendations for the bank, the government, and donors to consider in order to allow BAGRICOLA a reasonable set of options to gain greater financial viability for the future.

II. Macroeconomic Environment

Table 1 sets forth the relevant macroeconomic indicators for the Dominican Republic from 1985 through 1988. Increasing fiscal deficits and rising inflation characterize this period.

Table 1. Dominican Republic: Macroeconomic Indicators 1985-1988

	Growth Real GDP	Annual Rate of Change of Consumer Prices %	Public Sector Deficit (% GDP)	Current Account Deficit (Millions US)	Current Account Deficit (% GDP)
1985	-2.6	28.4	2.4	200.0	4.5
1986	3.2	6.5	6.6	206.6	3.8
1987	7.2	25.0	4.9	346.1	6.9
1988	1.1	57.6	6.6	131.4	2.9

Sources: Central Bank of the Dominican Republic, IMF statistics.

With the election of Dr. Joaquin Balaguer on May 16th, 1986 the Central Government embarked on an ambitious public investment program, in an effort to reduce unemployment and increase economic growth. As a result of these policies real growth of GDP rose to 7.2 percent during 1987, from a rate of growth of 3.2 percent in 1986. Inflationary pressures began to mount, however, with prices rising 6.5 percent in 1986 and 25 percent in 1987. The current account deficit in the balance of payments, which had reached 3.8 percent of GDP in 1986, rose to almost 7 percent by the end of 1987. The government financed this deficit with a fall in international monetary reserves and with payment arrears to international creditors. By 1988 real growth of GDP stagnated, with the inflation rate reaching almost 58 percent on a 12-month basis.

The deficit of the consolidated public sector, which stood at 4.9 percent of GDP in 1987, rose to 6.6 percent, as Central Bank losses grew, primarily as a result of exhange rate subsidies. Although the budget of the Central Government has remained in balance or with a slight deficit, the operating losses of the decentralized institutions (the Electric company, Banco Agricola, Molinos Dominicanos) have represented a serious drain on public sector finances. The rapid growth in aggregate demand which resulted from the government's policies led to the rapid depreciation of the Dominican peso during 1987 and 1988. This culminated in the adoption of exchange rate policies which alternated from freely floating rates to managed rates dictated by the Central Bank. As a result of a significant rise in the exchange rate in the free market, in August of 1988 the Monetary Board established a system in which all foreign exchange had to be surrendered to the Central Bank at a rate

of 6.28 pesos per dollar (Sistema de Registro de Divisas). This system led to a degree of stability in the exchange markets during the following 10 months.

During 1989 real growth of GDP remained stagnant, with inflationary pressures subsiding to an annual rate of 42.2 percent. The need to finance the public sector deficit led to the rapid growth of domestic credit by the banking system. In addition, credit to the private sector continued to expand rapidly, as commercial banks failed to comply with reserve requirements. Although the new exchange rate system implemented in August 1988 explicitly contemplated variation of the exchange rate, in response to variations in inflation in the Dominican Republic relative to its major trading partners, the Executive would not allow its readjustment during an election year. The Central Bank was unable to supply the demand for dollars at the official exchange rate and the margin between the official and the black market rate widened. By the third quarter of 1989 the country was facing a foreign exchange crisis. The spread between the official and black market exhange rates stood at about 40 percent by the end of 1989, and by April 1990 it had reached over 60 percent, while a growing proportion of imports, close to 80 percent, had to be undertaken at black market rates. In an effort to slow the growth of domestic credit, during the last quarter of 1989 the Central Bank took strong measures to ensure that the commercial banks would comply with declared reserve requirements, by limiting their access to Central Bank credit. This pressure on the part of the Central Bank has created a serious liquidity crisis within the banking system over the past months, which has seriously undermined the confidence of the depositing public.

Although the demand for credit from the public sector declined somewhat during 1989, credit to the private sector continued to expand rapidly. While the prices of some public services have been raised, implicit subsidies have widened, as the official exchange rate has become highly overvalued. The government tried to hold the line on public sector wages, leading to a two-day strike which paralyzed the entire country in June, 1989. As a result, real wage rates sharply fell during 1988 and 1989. The economic environment also reflected an extreme degree of uncertainty, as a result of the May, 1990 presidential elections.

The government continues to maintain price controls on some products in the consumer basket, but its ability to enforce these controls has been sharply undermined. Rice marketing has been transfered completely to the private sector, allowing supply and demand to determine its price. Despite the lack of enforcement of domestic price controls, the government continues to import foodstuffs, which are then sold below market prices. These policies have a major negative impact on domestic producers.

III. The Structure of Financial Markets

Financial markets in the Dominican Republic are highly fragmented, characterized by a large number of specialized financial institutions. The regulatory philosophy dominating the present market structure has sought to fix prices and isolate the different institutions from competition, out of a concern for the alledged safety of the system. The regulatory framework has evolved very slowly in response to changes in the economy and, as a consequence, this has led to the development of a large segment of non-regulated

financial institutions. Due to statutory ceilings on nominal interest rates, participants in the market have been induced to circumvent regulations by the use of various schemes that further hinder competition through a lack of information for the consumer. Established and well functioning capital markets do not exist in the Dominican Republic.

The financial market is dominated by private sector institutions, which are made up of 23 commercial banks, 36 private development banks, 16 mortgage banks, 20 savings and loan associations, approximately 600 finance companies (financieras) that finance medium and small size firms and consumer loans, and 76 small loan companies (casas de prestamos de menor cuantia) which specialize in the same type of operations. There also exist several credit card institutions, 50 insurance companies, and a few dozen credit unions. In addition, there are thousands of pawn shop operations throughout the country. Non-profit foundations, associations, and private volunteer organizations have also been formed to reach specific target groups, such as micro-entrepreneurs, women, or rural peasants.

The public sector has one commercial bank (Banco de Reservas), one development bank (Banco Agricola), a central housing bank (Banco Nacional de la Vivienda), one industrial development corporation (Corporacion de Fomento Industrial), one consumer loan company which operates quite similar to a pawn shop (Caja de Ahorros y Monte Piedad), and a cooperative development agency (IDECOOP).

Many different types of financial institutions are linked through larger holding companies (Grupos Financieros). The formation of these groups by the private sector has become a way to overcome the inherent risks of institutional specialization, to partially avoid regulation, and to gain access to subsidized funding available only through specific

institutional types. Regulations which set extremely low ceilings on interest rates paid on different savings instruments have made the establishment of a financial institution to capture these savings a profitable means to in turn issue loans for the non-financial firms in the group. In addition, the highly subsidized "development" funds at the Central Bank (FIDE and INFRATUR), as well as tax exemptions have constituted a powerful incentive for the establishment of private development banks operated by these holding companies, in order to further become eligible for access to subsidized funds. Dominican banking regulations do not adequately address the regulatory needs which arise out of the existence of these financial holding companies. Insider dealing has become a serious problem, and a major financial crisis has already developed with two of these groups (Grupo Financiero Bancibao, Grupo Dominico-Hispano).

Financial services in the Dominican Republic are highly concentrated in large urban centers such as Santo Domingo and Santiago. Only the Banco Agricola and the Banco de Reservas have had an important presence in rural communities in past decades. In recent years, however, there has been a rapid growth in the number of branch offices and agencies of private commercial banks operating in smaller secondary towns. The rapid growth in the number of financial institutions and the lure of mobilizing highly subsidized savings and checking accounts have fueled this expansion. While this growth in branches has somewhat improved the access to deposit facilities for the local population, it has not led to a significant improvement in the access to credit services by the rural population, as a large proportion of the funds mobilized are transfered to the large urban centers. The degree of geographic concentration of financial services remains verh high, despite these developments.

Some efforts at partial reforms of financial markets began in 1985, in conjunction with a Stand-By Agreement with the International Monetary Fund. These efforts have been half-hearted and have not advanced financial markets towards improved competition, transparency, and security. Banking supervision and examination is inadequate, due to various structural and legal limitations of the institutions charged with this responsibility (Superintendency of Banks and the Monetary Board of the Central Bank). Interest rates on large financial certificates were raised and regulation of commercial financieras was instituted. These finance companies have been forced to register with the Superintendency of Banks, in addition to complying with reserve requirements and interest rate ceilings. These institutions have retained a regulatory advantage with regard to the rest of the financial system, nevertheless, because of lower reserve requirements. Although most financieras have registered with the Superintendency, this institution does not have the capability to effectively supervise their operations. The financieras are taking advantage of this registration to convince the public that they are now "regulated", and thus less risky deposit institutions for their savings. However, nominal registration combined with ineffective prudential supervision hardly reduces the risk to the depositing public.

The financial system in the Dominican Republic is in a state of disarray because of the lack of clear direction in the reforms undertaken by the Central Bank and the Superintendency of Banks. The crisis of various commercial finance companies was resolved by allowing the purchase of these financial intermediaries by regulated banking institutions, with rediscounts by the Central Bank as a "sweetener". Some of the commercial banks

which later developed serious liquidity problems were among those that participated in purchasing insolvent finance companies.

IV. Financial Viability and Institutional Strengthening of the Banco Agricola

1. Introduction

The Banco Agricola (BAGRICOLA) is the most important financial institution serving the rural areas in the Dominican Republic. It's mandate (Ley De Fomento Agricola No. 6186) specializes the bank's credit operations in agricultural and livestock activities. As a state-owned bank with 32 branch offices and 39 "satellite" offices, it is the most important instrument of the government's agricultural sector policies.[3] In the past, the Bank has played a central role serving as an conduit for multilateral and bilateral lending institutions. However, it has not signed a major loan agreement with any international lending institution since its most recent loan for $36.5 million dollars with the InterAmerican Development bank (IDB) in 1982. In recent years it has also played a major role in transferring rice marketing from the price stabilization board (INESPRE) to private market intermediaries. The bank is currently going through the most significant institutional and financial transformation of its 40 year history as a result of reduced funding from external donor institutions.

Despite its rather large size, BAGRICOLA is able to service only a small proportion of the total credit demand in the agricultural sector. Funding restictions as well as the

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[3] The operations of the satellite offices have been established in the smaller towns in order to reduce the transactions costs for the borrowers and savers.

progressive decapitalization of its loan portfolio have severely undermined its presence in the rural economy. According to published statistics, BAGRICOLA contributed about 45 percent of the banking system lending to the agricultural sector in 1988. This participation declined consistently over the past ten years, from a high of 65 percent at the end of the 1970s to its current level.[4] The onset of inflationary pressures in the 1980s and an excessive loan delinquency have been responsible for the large decline in the real size of the bank's portfolio. During the past few years, new funding has come almost entirely from domestic sources, as a result of the loss of access to international lending institutions. In 1984 the bank began to mobilize deposits from the public and has accumulated RD$ 59 million pesos in deposits.[5] In addition, over the last four years it has received more than RD$500 million of capital injections from the Central Government and the Central Bank.

The bank has been suffering from a serious problem with its image among bilateral and multilateral lending agencies as well as with several government institutions. In part, its poor image has grown out of excessive borrower delinquency and political intrusion, such as the public pardoning of loans totalling RD$ 60 million by the Salvador Jorge Blanco administration in 1985. In addition, obsolete operating procedures and poor information management systems have undermined the reliability and timeliness of financial information provided by the bank.

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[4] See "Informe de Evaluación Institucional y Financiera del Banco Agrícola de la República Dominicana, Período 1982-1988," Departamento de Programación, Sección de Evaluación y Seguimiento Programas de Crédito, Banco Agrícola, Santo Domingo, Mayo 1989.

[5] Deposit mobilization was introduced in the bank by The Ohio State University's Rural Deposit Mobilization project.

2. Financial Analysis of the Banco Agricola

This section identifies the major variables that affect the financial viability of the bank. Different measures of financial viability are presented that highlight the problem of financial self-sufficiency. Institutional reforms currently being carried out to improve the financial viability of the institution are reviewed along with the role that the political milieu plays in undermining its financial position.

During the 1980s Banco Agricola has experienced a severe financial contraction in the real size of its portfolio, as is evident in Chart 1.[6] When compared to the levels attained before the hurricane in 1979, the bank's real portfolio had declined by 31.4 percent from the end of 1978 to 1986 as seen in the right side smaller histograms for each year in Chart 1 which represent constant pesos in contrast to the current peso histograms on the left side. Despite a massive growth in current pesos between 1986 and 1988, the bank's real portfolio has witnessed only moderate expansion, as a result of high rates of inflation. In 1989 the Bank registered a slight increase in the real value of lending, but this was still well below the levels of the early 1980s.

The severe decapitalization of the bank's portfolio has been caused primarily by excessive loan delinquency, negative real rates of interest in the face of rising inflation, and, to a lesser extent, upon relatively high operating costs. The growing domestic inflation and devaluation of the Dominican peso during the 1980s raised the costs of agricultural

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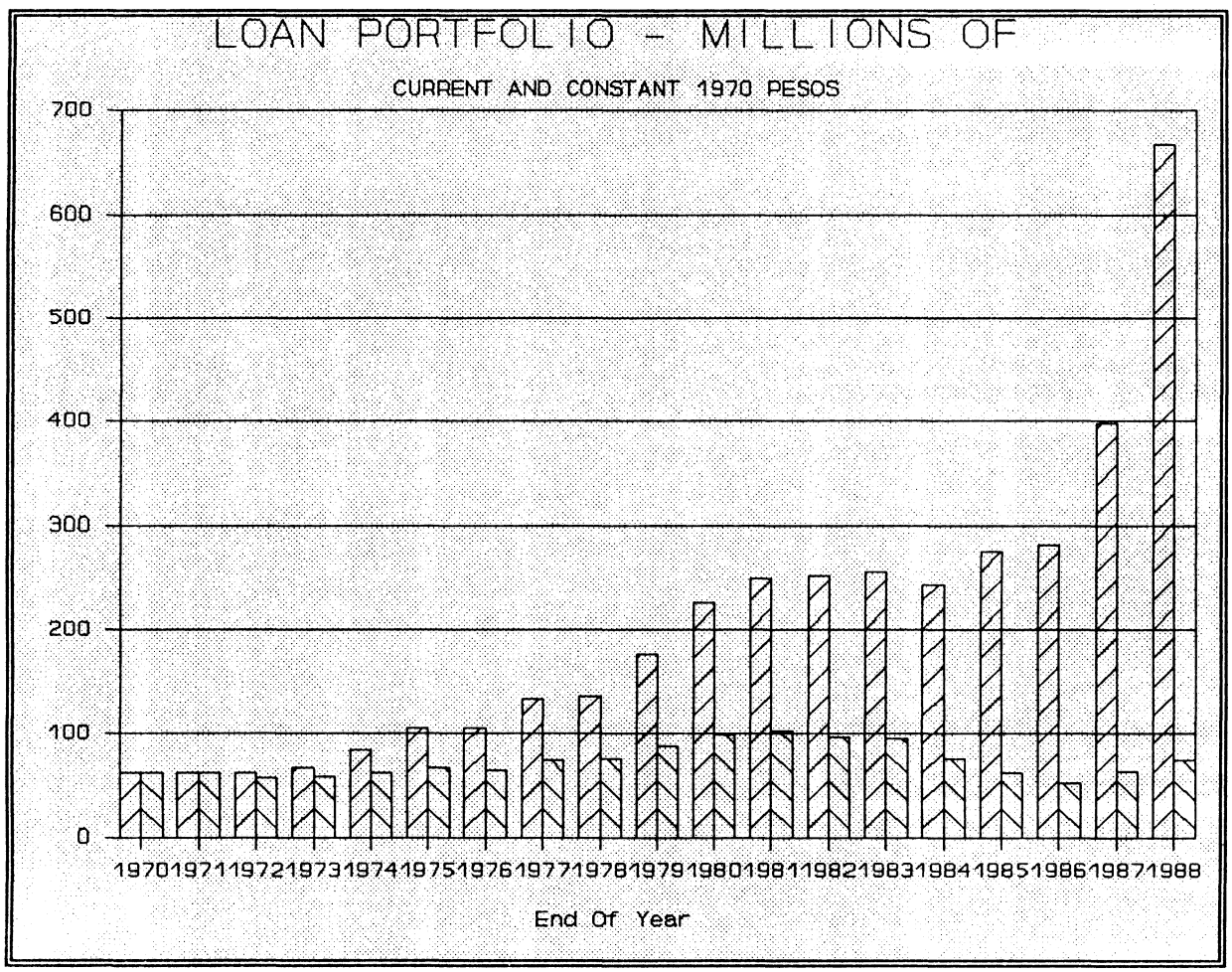
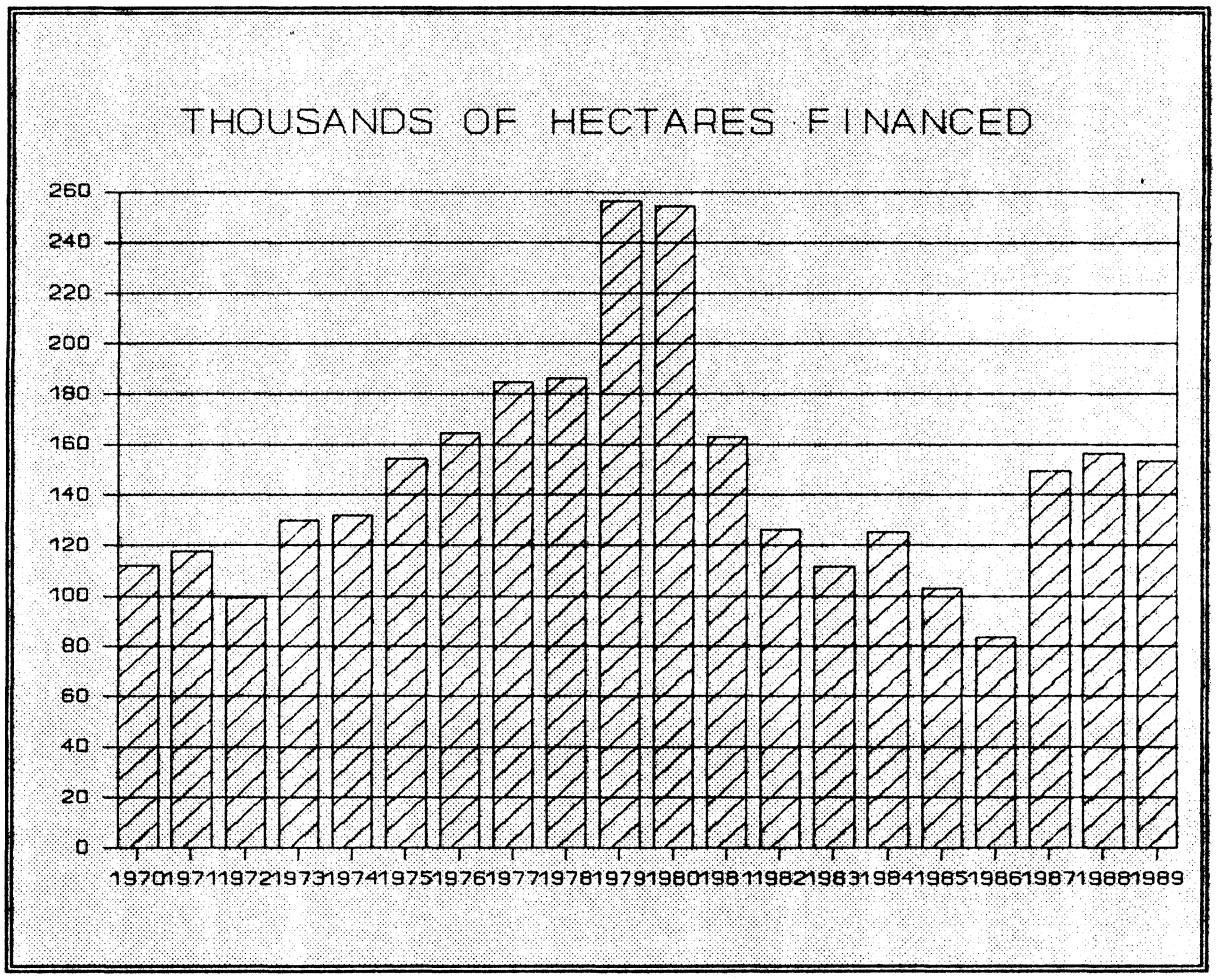
[6] The bank's real size is somewhat overstated in 1980 as a result of the infusion of resources during the 1979 hurricane. The massive amount of the emergency funding overwhelmed the institution's capacity to effectively administer it and the bank thus became a conduit for humanitarian aid.

Chart 1



production, thereby limiting the bank's ability to service the same number of farmers or to finance the same physical area. Focusing on crop loans in Chart 2, we observe the effects of the massive decapitalization measured in hectares financed with annual loan disbursements. Due to the political importance attached to self-sufficiency in rice production during the period from 1980 to 1986, other crops were rationed out of the loan portfolio to make room for rice producers within a shrinking real portfolio. The distribution of total area financed for rice production rose from 22 percent in 1980 to 49 percent in 1986.

Chart 2



During 1987 there was a significant recovery in the area financed by BAGRICOLA as a result of increased funding from the Central Government and the Central Bank. Despite this increase in resources, in 1988 and 1989 the real portfolio continued to stagnate. In addition, during the past two years a large proportion of the new funding was used to finance medium and long term investment projects. This has seriously compromised the institution's ability to adequately fund the short cycle crops of basic grains.

The statistics on loan delinquency in the bank have always been deficient. In the past, only those loans in which all payments had fallen due were classified as delinquent. Current medium and long term loans with installment arrears were not included as delinquent, since they had not yet completed their term maturity. In addition, several loan classifications were created (diferido, prorrogado), in which delinquent loans due to "natural factors" were rescheduled into non-delinquent postponed current loans at the discretion of branch managers. Finally, the practice of transferring delinquent agrarian reform loans to "accounts receivable" from the Central Government further contributed to seriously distort these statistics and disguise the true state of loan delinquency.

Although some of the loan classifications used to reduce delinquency have been eliminated, serious problems are still apparent. Specifically, the transfer of delinquent loans to accounts payable by the Central Government continues. Therefore, although aggregate loan delinquency, conventionally measured (total arrears over total loans outstanding), has shown a significant decline over the past few years, this fall has been primarily due to three factors: the result of the rapid growth in the loan portfolio with new long term loans not yet due, a lengthening in the term maturity of loans, and greater efforts in the area of loan collection for those loans in delinquent status. It is impossible to determine from these aggregate statistics which of these factors has been most important. In addition, because of frequent changes in the definition of delinquency, comparisons over time are rendered impossible. It is estimated that over the past few years delinquency has probably fluctuated from 20 to 40 percent of the outstanding loan portfolio. A more detailed and revealing

Chart 3

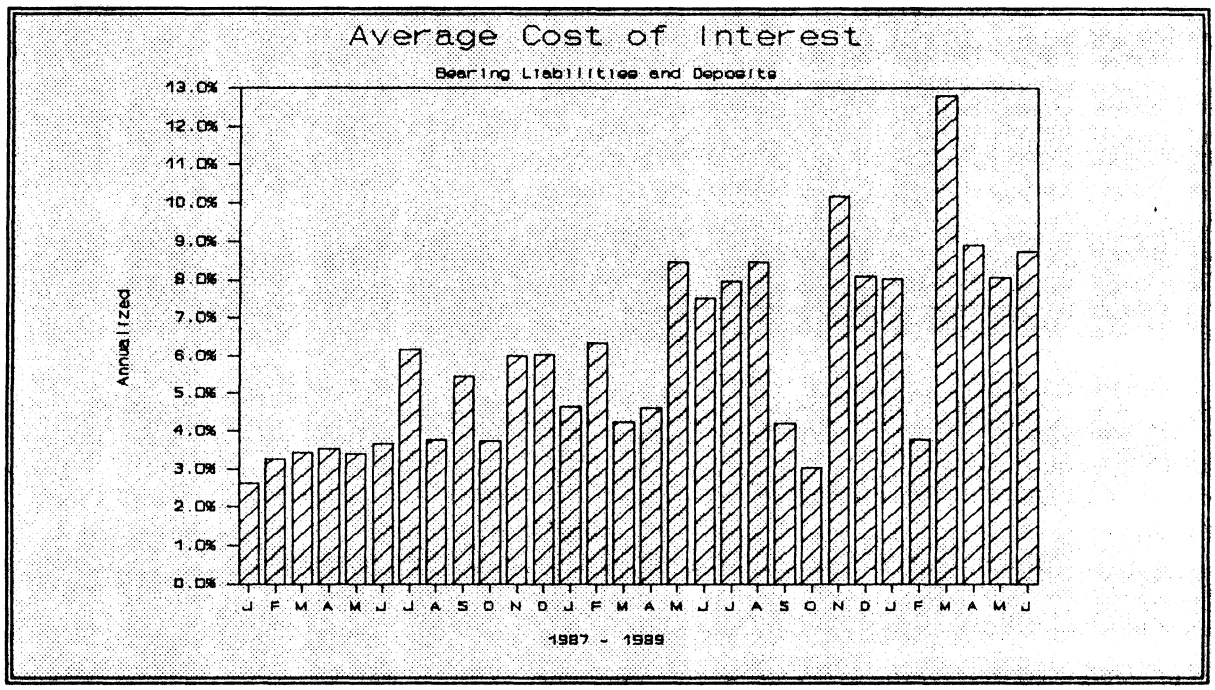
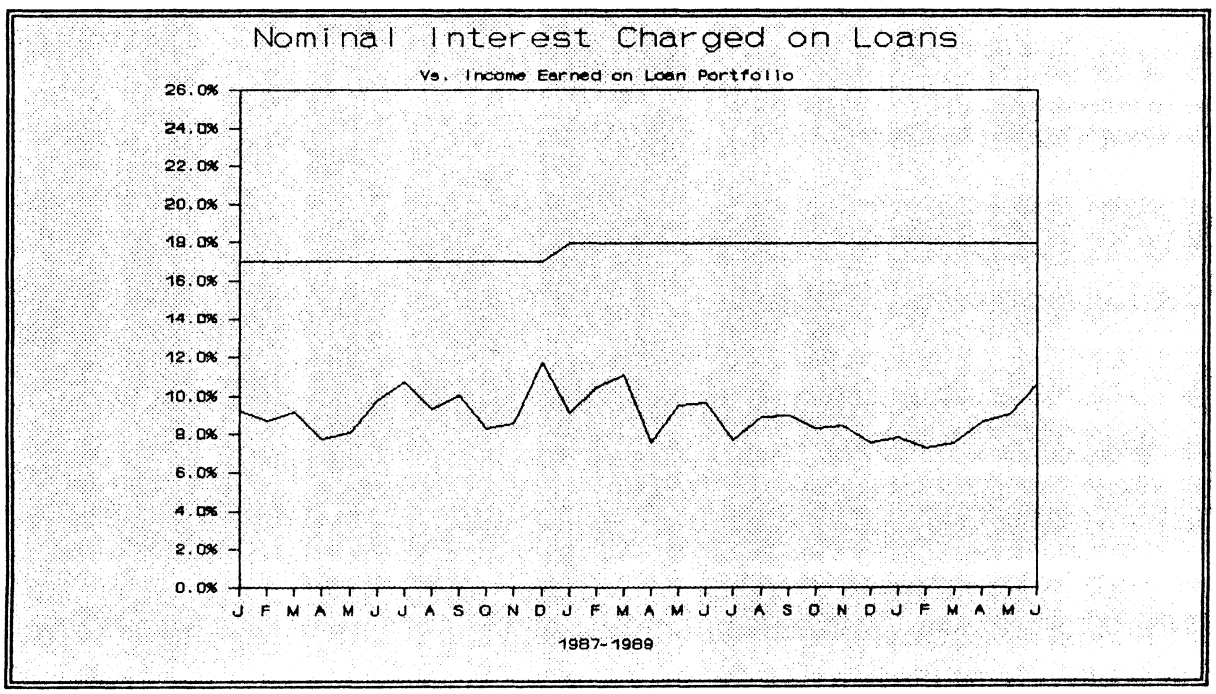


Chart 4



analysis of loan delinquency will be undertaken in the final section of this report, using a more rigorous and consistent definition of arrears.

As of June 1989 the bank had accumulated over DR$ 6 million in operating losses. These losses have been due to a declining and even negative real interest rate spread, that has resulted from greater dependence on domestic sources of finance which, unlike external funding, carry interest charges.[7] Between December of 1984 and June of 1989 the equity multiplier (total assets/equity) increased from 1.94 to 3.44, demostrating the greater reliance on liabilities in funding the loan portfolio. In addition to greater reliance on funding from interest bearing liabilities, the interest costs of these liabilities have increased as a result of rising inflation. As shown in Chart 3, the annualized interest on domestic liabilities has increased from about 3 to 8 percent, between the end of 1986 and 1989.

The operating losses which accumulated during 1989 were the result of increasing financial costs without a compensating increase in interest income. Chart 4 presents the effective interest income (interest and commissions) on the bank's loan portfolio between January 1987 and June 1989. Despite the fact that the bank has been charging simple interest plus commissions between 17 and 19 percent on its loans, this only generated about 10 cents earnings on every peso in their portfolio.

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[7] The IDB loans, which have been the major source of funding for BAGRICOLA in the past, have been provided as capital by the Central Government. Although the Dominican Government has contracted a loan with the IDB, the Banco Agricola has received the domestic currency with no interest cost or repayment obligation to the Central Government. This has been an unfortunate practice, since it destroys incentives for efficiency at BAGRICOLA.

Table 2
Banco Agricola
Interest and Comission Charges
on Agricultural Production Loans

Year	Interest	Commissions	Total
1980	10	2	12
1981	10	2	12
1982	11	2	13
1983	12	2	14
1984	12	4	16
1985	12	5	17
1986	12	5	17
1987	12	6	18
1988	12	6	18
1989	12	18	30

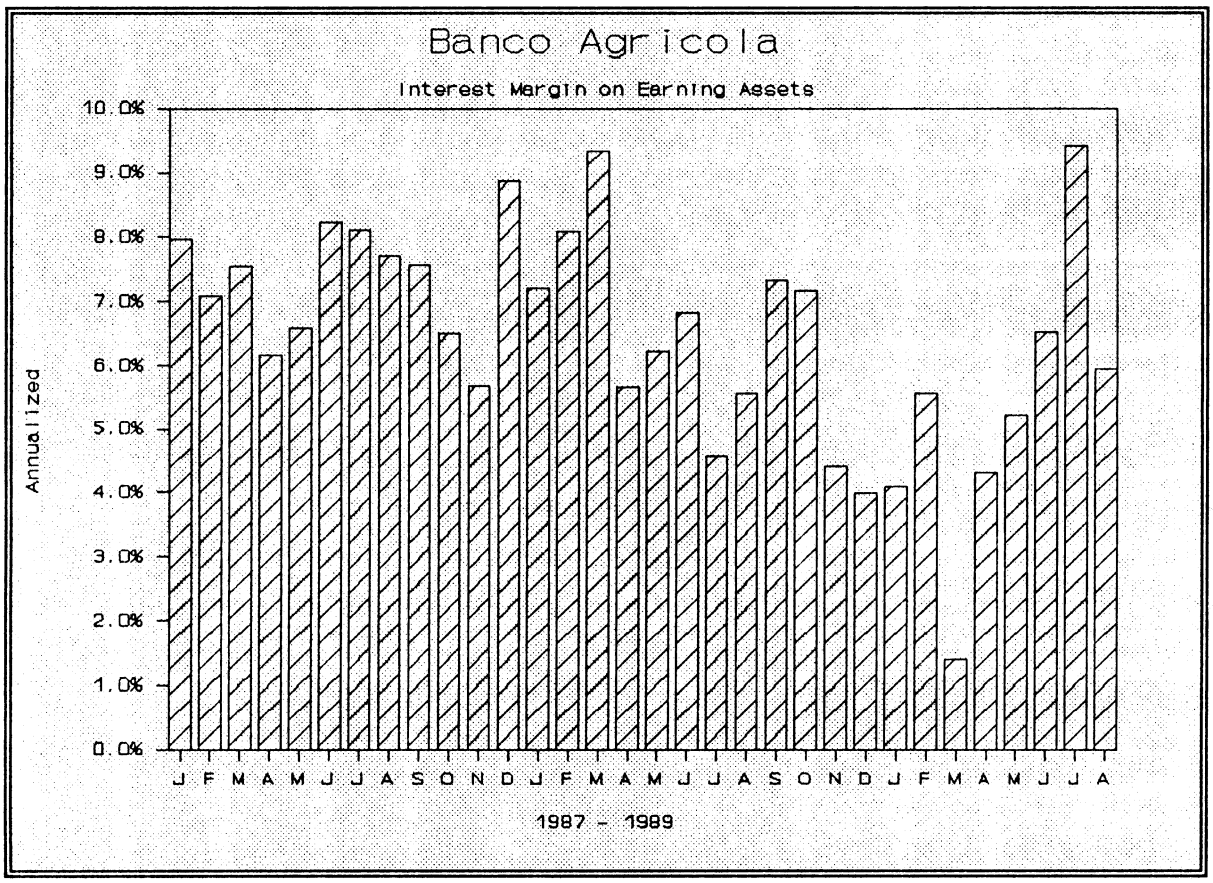
Source: "Informe de Evaluación Institucional y Financiera del Banco Agrícola de la República Dominicana Período 1982-1988", Banco Agrícola, Santo Domingo, May 1989.

As can be seen in Table 2, total charges on loans, including interest and commissions, have risen considerably since 1984 with the onset of domestic inflationary pressures. However, the bank has been effectively earning only about 10 percent on its interest income. This limited income has been due to a combination of a large number of non-performing loans in the portfolio, which have reduced interest income, and to the role of longer term loans, that were disbursed prior to the major interest rate reforms of the last four years.[8]

[8] Information on the distribution of the loan portfolio by interest rates and commissions could not be obtained. However, over the past few years the loans formalized by the bank have been concentrated in short term rice production. This would seem

Chart 5 illustrates what has happened to the interest spread on the bank's loan portfolio over the 30 months between January 1987 and August 1989.[9] This spread, which subtracts interest charges on deposits from interest income has been declining in recent years.

Chart 5



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to suggest that the limited interest income earned on the loan portfolio has been primarily due to loan delinquency, rather than the lower rates of interest on long term loans disbursed in the late 1970s.

[9] The interest spread is defined as the ratio of interest income and commissions minus interest paid over the average loan portfolio.

In the face of these difficulties, in September of 1989 BAGRICOLA significantly revised its interest rate structure, increasing total interest charges (primarily through increased commissions) from 17-19 to 30-32 percent per annum (see Table 2). Since many of the comissions are charged up front, however, the effective rates of interest have risen above 40 percent on short term loans. Depending on the term of the loan, the effective interest charges may be in fact positive in real terms, considering that the 12-month inflation was approximately 42 percent during 1989. This reform has permitted the bank to increase significantly its interest income during the first quarter of 1990. It is expected that this policy will eventually have a positive impact on the bank's earnings, but this action will only alter its financial position significantly when the bank is able to address its loan delinquency problem.

Operating costs in the bank have been rising due to inflation (see Table 3, panel A). Salary and non-personnel costs, as a proportion of the portfolio or total assets, have actually been declining (see panels B and C). Contributions to the retirement fund increased nine fold between 1988 and 1989, to replace the depletion of this fund in past years. At the same time, bad loan write-offs also increased significantly in the past two years, to make up for extended defaults accumulated from previous years. When one reviews the trends in operational costs in constant pesos (panel D), it is apparent that the increase in these costs in real terms is not associated with personnel or conventional non-personnel costs. The lack of profitability is associated with the large number of non-performing loans (evident in the write-offs) undermining the income streams (i.e. interest earnings) of the bank, in the face of rising interest costs evident in panel D.

Table 3
Operating Costs of Banco Agricola in Current and Constant Pesos and Total Assets and as a Percent of the Loan Portfolio and Total Assets, 1987-1989

	1987	1988	1989
A. Current Operating Costs			
	(1)	(2)	(3)
Average Loan Portfolio	354,149,437	529,849,233	794,253,550
Average Total Assets	560,523,525	819,481,810	1,174,455,089
Salaries + Benefits	21,125,398	28,279,713	40,476,932
Contribution to Retirement	1,682,288	2,160,342	18,234,992
Non-Personel Costs	7,290,984	12,312,494	17,062,348
Portfolio Write Off	0	38,000,000	180,012,981
Interest + Commissions	6,980,627	13,986,755	33,727,945
Total Expenditures	37,080,297	94,839,304	289,515,198
B. Total Costs as a Percent of Average Portfolio			
Salaries + Benefits	5.97%	5.36%	5.12%
Contribution to Retirement	0.48%	0.41%	2.30%
Non-Personel Costs	2.06%	2.32%	2.16%
Portfolio Write Off	0.00%	7.17%	22.75%
Interest + Commissions	1.97%	2.64%	4.26%
Total Expenditures	10.47%	17.90%	36.59%
C. Total Costs as a Percent of Average Total Assets			
Salaries + Benefits	3.77%	3.46%	3.45%
Contribution to Retirement	0.30%	0.26%	1.55%
Non-Personel Costs	1.30%	1.50%	1.45%
Portfolio Write Off	0.00%	4.64%	15.33%
Interest + Commissions	1.25%	1.71%	2.87%
Total Expenditures	6.62%	11.57%	24.65%
D. Constant Operating Costs (Base 1976-77)			
Salaries + Benefits	5,743,835	5,342,265	5,239,664
Contribution to Retirement	457,380	406,668	2,360,486
Non-Personel Costs	1,982,269	2,317,733	2,208,690
Portfolio Write Off	0	7,153,210	23,302,350
Interest + Commissions	1,897,889	2,632,900	4,366,021
Total Expenditures	10,081,373	17,852,776	37,477,210

3. Institutional Incentives

The major problem facing BAGRICOLA with regard to its financial viability is its serious loan delinquency problem. In several studies on the subject, the bank has identified its own obsolete operating procedures (credit analysis, supervision, and loan recovery efforts) as the single most important variable affecting loan delinquency and default. The lack of profitability of the agricultural sector due to public sector pricing policies and natural phenomena has also played an important role in reducing the profitability of its clients activities.

Obsolete operational and information systems have aggravated the loan delinquency problem. The lack of clearly specified and consistent institutional objectives, emphasizing financial viability have contributed to this deficiency. From its establishment through the beginning of the 1980s the bank enjoyed ample access to external donor funds. Its major creditors (the Inter-American Development Bank, the Agency for International Development, and the World Bank) have traditionally been concerned with the "impact" of their subsidized credit programs on the welfare of the borrowing clientele, and consequently have paid little attention to the institution's financial viability.[10] These external loans were contracted directly with the Central Government, whose major incentive was to obtain access to foreign exchange at a highly subsidized rate of interest, to alleviate its shortage of foreign exchange. The Central Government then provided the equivalent local currency to

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[10] The emphasis placed on impact studies responded to the bureaucratic incentives within donor institutions to demonstrate that their loan programs were raising the incomes of the poor.

the bank, in the form of capital appropriations from the Central Government's budget or even from monetary creation.

Officials of the bank have had an incentive to negotiate access to these resources under the most favorable conditions and, as a result, BAGRICOLA has been funding most of its operations from capital provided by the Central Government. This meant that the bank was never placed in a position to have to make repayments of principal or interest for the use of these donor-sourced resources. Everything the bank recovered was used to make new loans and to cover operating costs. The impact of the bank's delinquency on its annual disbursements was hidden by new capital injections every year. Once the fresh funds were no longer forthcoming, however, decapitalization of the bank became a serious obstacle for the continued financing of agricultural production.

According to the Ley de Fomento Agricola No. 6186, the bank is expected to provide credit for agrarian reform beneficiaries. This was to be financed from the Fondo de Operaciones Especiales and funds provided by the Central Government from annual budgets earmarked for this purpose. In practice, however, BAGRICOLA has been forced to make loans from its own resources. This has thereby transferred a fiscal function to the Banco Agricola that properly belongs in the budget of the Central Government. When these loans become delinquent, the bank transfers them to accounts collectible from the Government (Article 52 of the law which creates the Dominican Agrarian Institute).

The practice of mixing sound commercial loans with these social welfare "loans" has created a serious problem of moral hazard (excessive risk taking) within the lending operations of the bank. Since the loans for agrarian reform beneficiaries are guaranteed

by the State, the bank repeatedly funds marginal agrarian reform projects, as well as loans to individual farmers, that may already have a past record of delinquent loans. As these delinquent "social" loans have grown rapidly in recent years and the responsibility for loan recovery may have become more relaxed, delinquency and staff morale have become a problem for the bank.

V. Loan Repayment Problems in Banco Agricola

Given the predominant role that non-performing (delinquent) loans play in creating the liquidity problems and growing lack of financial viability of Banco Agricola, a separate study was undertaken by the Ohio State team to document this problem in detail. First, it is instructive to set forth the officially reported default data for the bank in Table 4. From this data it would appear that the bank is succeeding in addressing the problems of loan delinquency in that default, as measured by the bank, has declined from 21 percent in 1983 to only 6.9 percent in 1988. There are important deficiencies in this measure, however. First, only loans that have completed their full term in default are classified as past due in column (1). All the remaining medium and long term loans that have yet to complete their term are excluded, even if a significant proportion of the on-going installment payments are in arrears. Second, the data in column (2) includes a large injection of new long term loans in recent years, many of which are not yet due. When the bank reports the ratio of column (1) over column (2) as a default index, it is inadvertantly hiding potentially serious default problems. Put differently, delinquency and default ratios should be based on the volume of arrears over the relevant portfolio that has fallen due, including delinquent installments.

It makes no sense to include in the denominator loan amounts that are not yet due. Furthermore, many delinquent loans have been rescheduled and thereby are classified as current (i.e. without arrears).

Table 4

Loan Default Index of the Agricultural Bank (BAGRICOLA) in the Dominican Republic, 1983-1988

Year	Loan Amount (DR Pesos)		Default Index (percent)
	Pastdue	Portfolio	(1/2)
	(1)	(2)	(3)
1. 1983	53,716,257	255,542,211	21.1
2. 1984	48,296,325	243,190,640	19.9
3. 1985	45,102,256	272,522,732	16.6
4. 1986	53,558,211	280,461,565	19.1
5. 1987	51,160,831	388,462,646	13.0
6. 1988	43,848,321	633,929,335	6.9

Source: Boletin Estadistico, 1987, Banco Agricola de la Republica Dominicana.

To address this problem, the Ohio State team drew a random sample of loans issued in 1987 and tracked their performance over the succeeding two years (up to the end of August, 1989). The random sample of 3,455 loan dossiers from 18 representative branches amounted to approximately nine percent of the total number of loan applications in 1987. Of this total, 569 applications were rejected, 538 withdrawn by the loan applicants, and 2,251 finally approved by the bank.

In addition, the repayment status (as of August 31, 1989) of these approved loans issued in 1987 was classified according to six categories:

(1) complete or partial default (vencido) if the total loan or some installments of longer term loans were unpaid 30 days after the due date. Since a considerable number of these loans had already completed their term maturity by August 1989 one can refer to this category as representing hard core default;

(2) in litigation, if unpaid loans (or installments) were subject to legal collection procedures;

(3) rescheduled, if the repayment period of the loan had been extended without altering the sum of principal and interest outstanding;

(4) paid with arrears, for loans with completed term maturity if the loan or installments had been paid later than 30 days after the due date;

(5) current, if loans or installments are not yet due; and

(6) paid without arrears, if loans or installments had been paid within 30 days of the due date.

Defaulting loans are just one dimension of the loan repayment problem faced by the institution in recent years. Installment arrears and the rescheduling of outstanding loans constitute another important dimension of the loan repayment problems faced by the bank. Hence, any meaningful analysis of the repayment performance of outstanding loans disbursed by development institutions must also analyze the incidence of rescheduling and installment arrears.

The effects of different loan characteristics on loan repayment performance are presented here according to several cross classified variables with loan repayment. Detailed

loan repayment status is reported for the number and volume of loans granted by type of borrower, land tenancy, type of investment, source of funds, and type of collateral.

Table 5 presents the aggregate data on repayment status for our total sample of loans issued in 1987. If we add up the four default and arrears categories, it is clear (in column 3) that approximately 72 percent of the number of loans issued in 1987 had experienced some state of default or arrears. This is evidence of a serious loan recovery problem for the bank. Secondly, very few loans have fallen into litigation. This suggests that the bank tends to avoid the use of legal channels due to the costs and delays of drawing upon this instrument for collection. However, it is apparent that larger borrowers tend to fall into litigation as the average loan size for this default category is greater than those for the other classifications (see column 1).

Finally, it is pertinent to underscore the seriousness of having 45 percent of the total sample of loans falling into hardcore default. The costs of recovering these loans many of which have completed their term in default would be high and the results problematical. It is now easier to understand why the bank has been experiencing liquidity problems and generating operational losses. The inability to secure reasonable loan repayments restricts the funding base for new loans (i.e., the liquidity problem), while the lack of interest earnings from defaulted loans contributes to operational losses. It is now instructive to see how this delinquency problem is reflected in specific borrower and loan characteristics.

Table 5

Percentage Distribution of the On-Going Repayment Status as of August 1989 of the Sample of Loans Disbursed in 1987

Repayment Status of Sample of Loans	Average Loan Size	Percentage of the Volume Disbursed	Percentage of the Number of Loans
	D.R. Pesos	%	%
Default	3,406.7	20.1	44.9
In Litigation	10,561.0	0.4	0.2
Rescheduled	5,274.1	4.1	5.4
Paid with Arrears	6,429.4	33.0	21.9
Current	6,154.5	11.6	10.2
Paid without Arrears	2,267.2	8.8	16.7

Borrower Type Profile

Information in Table 6 highlights the important incidence of poor loan recovery from agrarian reform beneficiaries, with individual reform beneficiaries performing more poorly than reform groups or associations. Column (1) underscores the greater incidence of completed term maturity default and partial default (before completed maturity) for agrarian reform borrowers both in terms of the number of loans or the volume disbursed. However, even individual non reform borrowers record poor repayment (in terms of the number of loans). The non-reform associations (both groups and firms) record the best loan repayment behavior. While the loan recovery record is poor throughout, it is clear that the agrarian reform borrowers represent a high risk, adverse clientele compromising the performance of the bank.

Table 6

Repayment Status by August 30th 1989 of the Sample of Loans Disbursed in 1987
by Type of Borrowers

A. Percentage of the Volume Disbursed

Type of Borrower Category	Volume Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
	(000) Pesos	%	%	%	%	%	%
1. Non-Reform Individual	5597.92	20.2	0.5	3.5	31.6	17.8	13.1
2. Non-Reform Association	330.18	2.1	-	16.1	58.8	19.9	2.4
3. Agrarian Reform Individual	1244.35	31.8	0.7	10.0	26.2	4.5	8.1
4. Agrarian Reform Association	2325.29	17.9	-	1.4	37.9	0.5	1.0
5. Other	60.75	11.3	-	-	82.3	1.8	-

B. Percentage of the Number of Loans

Type of Borrower Category	Number of Loans	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
		%	%	%	%	%	%
1. Non-Reform Individual	1737	42.0	0.1	4.4	23.9	11.1	18.5
2. Non-Reform Association	22	22.7	-	9.1	36.4	18.2	13.6
3. Agrarian Reform Individual	462	57.4	0.5	9.5	13.9	6.7	12.0
4. Agrarian Reform Association	41	41.5	-	2.4	39.0	9.8	7.3
5. Other	10	80.0	-	-	10.0	10.0	-

Tenancy and Collateral Profile

In Table 7 it becomes clear that tenancy is not a major factor separating good from bad borrowers (again with the exception of the agrarian reform cultivators). The hard core default indicators (in column 1) are high across all tenancy categories (for number of loans in default in panel B). It is interesting to note the relatively better performance of tenants and to a lesser extent for the "cedida" group (i.e. those who have been granted implicit title to their lands usually from extended family members). One would have thought that individual non-reform land owners would have performed markedly better than tenants and occupants of public lands. This is not the case. A probable explanation of this behavior lies in the nature of the collateral used by the bank to secure its loans. Ordinarily mortgage collateral should be expected to provide the incentive for good loan repayment for individual title holders. The fact that this does not occur in the Banco Agricola suggests that mortgage collateral is negligible in the bank's portfolio.

This conclusion is confirmed in Table 8, where it can be seen that land title is practically non-existent as a form of collateral in the bank's loan contracts. "Prenda" (crop lien pledges) predominates and this is surely the weakest form of collateral to use to secure a loan. The pignoraticia collateral (crops or other inventory in effective control or storage by the bank) is another strong collateral instrument and, again, it is evident in Table 8 that the bank is unable to draw upon this form of collateral in its contracts. Table 9 presenting the loan repayment record by collateral suggests that the bank would be better served if it could shift more of its loan contracts into mortgage or pignoraticia guarantees. The default index is much higher for the crop lien (prenda) category than for these other minimally used

Table 7

Repayment Status by August 30th 1989 of the Sample of Loans
Disbursed in 1987 by Type of Land Tenancy

A. Percentage of the Volume Disbursed

Type of Land Tenancy	Volume Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
	(000) Pesos	%	%	%	%	%	%
1. Private Land Owner	2569.57	18.9	1.0	2.9	35.0	22.8	8.3
2. Occupant of Public Land	2219.21	22.9	-	6.9	23.3	14.5	16.7
3. Land Tenant	263.98	5.4	-	2.9	79.5	1.8	8.7
4. CEDIDA	819.50	14.1	0.1	1.4	39.1	18.0	14.5
5. Reform Land Owner	3478.14	23.4	0.2	4.5	32.0	1.9	3.6
6. Other	176.58	4.2	-	-	89.3	-	5.9

B. Percentage of the Number of Loans

Type of Land Tenancy	Loans Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
		%	%	%	%	%	%
1. Private Land Owner	635	41.3	0.2	3.8	28.5	12.1	14.2
2. Occupant of Public Land	871	42.4	-	5.2	19.7	11.5	21.2
3. Land Tenant	30	33.3	-	6.7	36.7	6.7	16.7
4. CEDIDA	189	37.6	0.5	3.7	28.6	9.0	20.6
5. Reform Land Owner	471	56.9	0.4	8.9	15.1	7.0	11.7
6. Other	21	33.3	-	-	42.9	-	23.8

Table 8

Number, Amount, and Average Loan Size of the Sample of Loans Disbursed in 1987 by Type of Collateral

Type of Collateral	Number of Loans		Volume Disbursed		Average Loan Size
	N	%	(000) Pesos	%	(000) Pesos
1. Mortgage	31	1.4	654.5	6.8	21.11
2. Prenda	2210	98.2	8735.4	91.3	3.95
3. Pignoraticia	10	0.4	179.0	1.9	17.90
Total	2251	100.0	9568.9	100.0	4.25

Table 9

Repayment Status by August 30th 1989 of the Sample of Loans
Disbursed in 1987 by Type of Collateral

A. Percentage of the Volume Disbursed

Type of Collateral	Volume Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
	(000) Pesos	%	%	%	%	%	%
1. Mortgage	654.48	18.5	-	-	28.9	40.1	9.4
2. Prenda	8726.82	20.9	0.1	4.6	33.9	9.5	9.2
3. Pignoraticia	178.99	8.2	14.9	-	41.3	22.3	-

B. Percentage of the Number of Loans

Type of Collateral	Loans Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
		%	%	%	%	%	%
1. Mortgage	31	22.6	-	-	25.8	35.5	16.1
2. Prenda	2204	45.4	0.1	5.4	22.1	9.8	17.1
3. Pignoraticia	10	20.0	10.0	-	60.0	10.0	-

instruments. At the same time, it would be useful to explore why these other guarantee instruments are not used more and what, if anything, could be done to change this apparent built-in bias for crop lien guarantees.

Loan Use Profile (Enterprise-Type)

Data on repayment status by loan use in Table 10 highlights several interesting findings. Livestock activities rank high as default-prone loans both in terms of number and volume for hard core default in column (1). Industrial food crop borrowers perform best, with the lowest rate of default with agricultural export borrowers (coffee and cacao) and domestic food crop borrowers (rice, yucca, plantain, potatoes, and vegetables) falling in-between. It is of interest to note that the highly default-prone livestock loans are associated with government funds allocated (i.e. targeted) for these activities. This finding highlights the high cost the bank incurs in being forced to channel loans to a high risk clientele which the bank otherwise would not be inclined to include in its portfolio.

The second revealing result is the high rate of loans paid with arrears (column 4) precisely for the industrial food crop producers that recorded the lowest level of hardcore default in column (1). Thirty-nine percent of these borrowers registered delayed payments, which in turn constituted 81 percent arrears in terms of the volume disbursed in panel A of Table 10. This underscores the role that marketing problems play in compromising the bank's portfolio with arrears. These industrial food crop producers of tomatoes, pineapple, melons, and sorghum, sell their crops to processors who then delay payment to the farmers until after their product has been sold successfully down the marketing chain. Consequently,

Table 10

Repayment Status by August 30th 1989 of the Sample of Loans
Disbursed in 1987 by Type of Investment

A. Percentage of the Volume Disbursed

Type of Investment	Volume Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
	(000) Pesos	%	%	%	%	%	%
1. Non Industrial Food Crop	4682.86	18.6	0.7	7.2	28.0	3.4	11.7
2. Industrial Food Crop	1049.95	7.1	-	1.5	81.4	4.0	2.4
3. Agricultural Export	668.72	16.2	-	0.9	54.5	19.1	7.3
4. Livestock	2769.33	30.0	0.1	1.5	22.5	24.3	8.2
5. Machinery & Equipment	346.93	18.2	-	1.4	16.9	36.4	1.5
6. Other	43.30	35.2	-	-	24.7	9.0	17.9

B. Percentage of the Number of Loans

Type of Investment	Loans Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Rescheduled	Paid With Arrears	Current	Paid Without Arrears
		%	%	%	%	%	%
1. Non Industrial Food Crop	820	32.8	0.2	10.4	27.9	3.5	25.1
2. Industrial Food Crop	108	25.9	-	4.6	38.99	9.3	21.3
3. Agricultural Export	112	24.1	-	2.7	28.6	14.3	30.4
4. Livestock	1151	57.4	0.2	2.3	16.4	13.8	9.9
5. Machinery & Equipment	47	46.8	-	2.1	17.0	29.8	4.3
6. Other	7	42.9	-	-	14.3	14.3	28.6

the farmers fall into late payments (arrears) to the bank. However, it is important to note that these farm borrowers do in fact end up repaying a large proportion of their debt obligations to Banco Agricola, as seen in the relatively low hardcore default index for these borrowers in column (1).

This raises the question of whether "bridge loans" to these processor intermediaries might not help alleviate this problem. On the one hand, the bank could reduce the liquidity constraints facing these processor-marketers by granting them short-term loans, which in turn could allow them to pay their farmer suppliers on time. This would then allow these farm borrowers to repay the bank more promptly. On the other hand, the bank could grant loans to processors not only to cover their liquidity shortfall to purchase farm output, but an additional amount to in turn pass on as production loans to their farm suppliers they have contracted into their network. This would relieve the bank from the transaction costs of administering a large number of small farm loans and facilitate prompt repayment.

These options, however, are based on the premise that the processor intermediaries would be responsible clients and the bank would behave as a disciplined lender effectively monitoring and collecting its loans. One suspects that the processors in the past have taken advantage of their farm supplier clientele to in effect command a liquidity leverage for their own use through delayed payments. They would be inclined to do the same to the bank if the bank's image as a lax loan collector is not improved. Therefore, any new policy emphasizing bridge loans to farmers through processor-intermediaries should not only anticipate the savings in transaction costs implicit in this approach, but also evaluate the risk of poor loan repayment from the intermediary itself.

Source of Funds Profile

In Table 11 loan repayment is set forth by source of funds. As noted earlier government funds targeted to livestock activities (primarily the small livestock fund refered to here as the swine fund) records very high hard core default (column 1), with 64 percent of the number of loans in partial or complete default (accounting for 48 of the volume disbursed in this loan category). The international sourced FIDA funds allocated to small farmers also register very high default rates.

At the other extreme are loans made from locally mobilized deposits. Here the hard core default is only 4 percent. Some 41 percent are paid up but with some arrears. This is, again, a reflection of the above mentioned marketing problem that affects loans from all sources. The important point is that all are eventually repaid. Own resources (i.e., capital base) has the next lowest hard core default rate (24 percent of the number accounting for 12 percent of the volume disbursed). Finally, international sourced funds from the IDB, the World Bank, and AID (row three in Table 11) record an intermediate default index (32 percent) between the default-prone government funds and the low default own source or savings account funds.

An important finding underlined by these results is the generally poor repayment status (especially in terms of hard core default in Column 1) associated with funding sources that include targeting (i.e., international and government sources). In contrast, funds left free for branch level managers to allocate according to their own risk-adjusted criteria perform much better (i.e., own-source and savings accounts). This is a promising result. It indicates that if bank officials are given a broad mandate to grant loans in rural areas and

Table 11

Repayment Status by August 30th 1989 of the Sample of Loans Disbursed in 1987 by Source of Funds

A. Percentage of the Volume Disbursed

Source of Funds	Volume Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Resched-uled	Paid With Arrears	Current	Paid With-out Arrears
	(000) Pe-sos	%	%	%	%	%	%
1. Own Resource Fund	4394.59	11.7	-	2.3	34.2	14.9	10.3
2. FIDE Fund	95.74	7.9	27.8	10.9	9.5	5.5	17.1
3. International Fund	1404.38	32.3	-	0.4	28.3	22.9	10.9
4. Swine Fund	1077.95	48.4	0.2	1.9	16.6	6.5	12.2
5. Agrarian Reform Fund	1854.19	18.6	-	12.4	37.7	2.3	3.3
6. Savings Account Fund	104.24	0.1	-	-	49.9	1.0	42.4
7. FIDA Fund	182.91	53.7	-	19.2	3.8	1.5	0.4
8. Other	447.78	4.3	1.7	-	83.8	6.9	1.0

B. Percentage of the Number of Loans

Source of Funds	Loans Disbursed	Repayment Status of Sample of Loans					
		Default	In Litigation	Resched-uled	Paid With Arrears	Current	Paid Without Arrears
		%	%	%	%	%	%
1. Own Resource Fund	767	24.4	-	4.3	35.2	9.6	26.5
2. FIDE Fund	18	11.1	5.6	16.7	16.7	16.7	33.3
3. International Fund	186	32.8	-	2.7	21.0	21.5	22.0
4. Swine Fund	893	63.9	0.2	2.2	12.5	10.6	10.4
5. Agrarian Reform Fund	195	41.0	-	17.4	25.1	5.6	10.8
6. Saving Account Fund	24	4.2	-	-	41.7	4.2	50.0
7. FIDA Fund	131	74.0	-	19.1	3.8	2.3	0.8
8. Other	32	34.4	3.1	-	40.6	9.4	12.5

are free from detailed, client specific targeting, they can indeed behave like bankers and calibrate risks and returns to ensure viability. In short, viability requires autonomy in local level creditworthiness and loan management decisions. It is counterproductive for the government and international donors to presume to play this role through targeting criteria in the use of their funds.

Among other things, these findings also emphasize the important role that locally mobilized deposits play in creating a more disciplined and responsible credit evaluation and

loan recovery effort. The reason is simple. Local depositors are a local constituency, close at hand and quick to react (through vocal complaints or deposit withdrawals) if they suspect bank officials are using their funds to service a growing set of delinquent borrowers. At the same time, bank officials are sensitive to the negative consequences of treating a depositing public lightly. Therefore, they are more careful and responsible in the loans they service with deposit-based funds. In summary, the greater the relative share of deposits in total funding, the lower the rate of default and the greater the viability of the lender. Conversely, the greater the share of international and government sourced funds, the greater the delinquent portfolio and the lack of institutional viability.

Table 12 presents data on international donor sources in more detail. As mentioned before, FIDA funds register a dramatically high rate of default in number of loans (74 percent) and volume disbursed (54 percent). The clientele serviced with these funds are clearly high risk customers (small farmers). More research is needed to determine the reasons for this unacceptably high rate of non-performing loans. World Bank loans also register a high rate of default. These are primarily for coffee and cacao producers who have been experiencing price penalizing policies through an overvalued exchange rate that reduces their earnings.

IDB loans also register uncomfortably high arrears. The IDB loans are explicitly targeted to medium and small scale farmers, cattle ranchers or associations. No coffee, cacao, sugar cane, and tobacco farmers are allowed in the IDB portfolio. The medium and small scale farmers must currently meet three conditions:

Table 12

Repayment Status by August 30th 1989 of the Sample of Loans
Disbursed in 1987 by International Source of Funds

A. Percentage of the Volume Disbursed

Source of Funds	Volume Disbursed (000) Pesos	Repayment Status of Sample of Loans: Default %	Rescheduled %	Paid With Arrears %	Current %	Paid Without Arrears %
1. IDB Fund	798.33	38.7	0.2	22.4	23.9	10.3
2. World Bank Fund	283.90	45.0	-	4.4	45.6	0.1
3. FIDA Fund	182.91	53.7	19.2	3.8	1.5	0.4
4. Rotating AID Fund	322.15	5.3	1.2	63.9	0.6	21.9

B. Percentage of the Number of Loans

Source of Funds	Number of Loans	Repayment Status of Sample of Loans: Default %	Rescheduled %	Paid With Arrears %	Current %	Paid Without Arrears %
1. IDB Fund	59	33.9	3.4	16.9	20.3	25.4
2. World Bank Fund	61	50.8	-	3.3	44.3	1.6
3. FIDA Fund	131	74.0	19.1	3.8	2.3	0.8
4. Rotating AID Fund	66	15.2	4.5	40.9	1.5	37.9

(1) Not have total agricultural assets (including inventories) higher than 190,000 pesos for farmers and 360,000 pesos for cattle ranchers;

(2) Not have a loan amount that exceeds 100,000 pesos;

(3) Must be a new customer or qualify as excellent, very good, or good in pre loan credit ratings.

The emphasis on new borrowers introduces an element of risk for the bank, since they have no previous experience or information upon which to base a creditworthiness analysis. The high risk, high delinquency profile previously discussed with respect to livestock loans suggests that these relatively more default-prone activities are also likely to

be a part of the IDB portfolio. The fact that some customers may have a good credit rating prior to the loan is no guarantee of good future repayment performance, especially if non-performing loans are minimized as an important criteria in the IDB targeting scheme. This issue will be investigated shortly when we analyze the delinquency profile by credit ratings.

The best performing donor sources of funds are associated with the recently created AID rotating fund, designed by the Ohio State Rural Financial Services Project.. It is of interest to note that these AID loans have no targeting criteria and, furthermore, require that no new tranches are issued to the bank until the bank repays past tranches back into the rotating fund. It is clear from these results that targeting is counter productive. The IDB, the World Bank, and FIDA could benefit from the AID experience by removing their targeting criteria in future dealings with the bank. They could also benefit along with the bank by requiring more timely reports on the loan repayment status of their portfolio (rather than asking for dubious "impact" studies on the borrowers).

Profile of Borrower Credit Rating

Tables 13 and 14 complete this discussion of loan repayment performance of Banco Agricola by presenting data on client credit ratings before loans are allocated to borrowers. In Table 13 we see that the bank has a realistic view of potentially problem-prone customers. For example, the targeted swine fund (small livestock loans), agrarian reform loans, and the FIDA clientele record very few customers with excellent, very good, or good credit ratings. A preponderant majority were "new" customers about which the bank knew little. Therefore, the high default rates recorded earlier for these borrowers are not

Table 13

Profile of Borrower Credit Rating Characteristics of the Sample Loans Disbursed in 1987 by Source of Funds, by Number of Loans

Customer Credit Rating	Loans Disbursed	Source of Funds							
		Own Resources	FIDE Fund	Interna-tional	Swine Fund	Agrarian Reform Fund	Saving Accounts	FIDA Fund	Other
	N	%	%	%	%	%	%	%	%
1. Excellent	190	12.47	20.00	27.33	2.69	9.74	70.83	0.92	15.15
2. Very Good	141	9.32	6.67	13.66	3.27	9.74	16.67	2.75	12.12
3. Good	302	24.93	20.00	18.01	5.61	17.95	12.50	7.34	27.27
4. Fair	144	9.18	13.33	9.94	3.27	13.33	-	6.42	12.12
5. New	1212	41.23	13.33	27.33	81.52	42.05	-	82.57	45.45
6. Defaulting	84	3.70	26.67	4.97	3.74	7.18	4.17	1.83	-
8. No-rating	49	2.60	-	2.48	2.22	3.59	4.17	-	-

surprising. On the other hand, the bank rated 71 percent of their prospective clientele for deposit-based loans as excellent. Not surprisingly this clientele had by far the lowest default rates, thereby illustrating the consistency of the credit ratings.

The most interesting finding from these two tables concerns the profile for credit ratings, on the one hand, and the profile for default, on the other hand, as it relates to international sourced loans. In Table 13 it is clear that roughly 60 percent of internationally sourced loans (i.e. World Bank, IDB, and AID) received high credit ratings (the first three categories) prior to the disbursement of loans. Yet, when we look at Table 14, we note in panel B that roughtly 49 percent of the customer credit ratings for excellent, very good, and good categories ended up in default. These are largely contributed by those high credit rating customers from international funds. In brief, the bank, though picking generally well rated customers for these international sourced loans, clearly did not exercise disciplined loan recovery efforts on these same customers once the loans were granted. Moreover, it is apparent that this incidence of lax loan recovery was associated with the IDB and World

Table 14

Repayment Status by August 30th 1989 of the Sample of Loans
Disbursed in 1987 by Customer Credit Rating

A. Percentage of the Volume Disbursed

Customer Credit Rating	Volume Disbursed (000) Pesos	Repayment Status of Sample Loans: Default %	In Litigation %	Rescheduled %	Paid With Arrears %	Current %	Paid Without Arrears %
1. Excellent	1297.50	7.9	-	2.5	55.7	14.9	11.2
2. Very Good	1069.47	5.2	-	3.2	51.3	27.1	7.5
3. Good	1479.05	8.4	1.8	4.7	51.3	10.8	13.3
4. Fair	1631.98	17.2	0.5	2.3	17.0	3.0	4.3
5. New	3088.36	29.8	0.1	3.1	26.7	13.1	9.3
6. Defaulting	266.52	42.9	-	7.2	8.1	5.7	17.1
8. No Specified	234.02	11.9	-	38.8	12.4	5.2	0.2

B. Percentage of the Number of Loans

Customer Credit Rating	Loans Disbursed	Repayment Status of Sample of Loans: Default %	In Litigation %	Rescheduled %	Paid With Arrears %	Current %	Paid Without Arrears %
1. Excellent	190	13.7	-	5.3	44.2	8.9	27.9
2. Very Good	140	16.4	-	6.4	29.3	17.1	30.7
3. Good	301	18.6	0.3	6.6	30.9	11.0	32.6
4. Fair	144	37.5	0.7	3.5	31.9	9.7	16.7
5. New	1209	57.7	0.2	4.7	17.0	9.8	10.5
6. Defaulting	84	52.4	-	7.1	4.8	9.5	26.2
8. No Specified	48	50.0	-	8.3	22.9	16.7	2.1

Bank loans, since the AID loans registered a relatively low default index, shown in Table 12.

Two principal lessons can be drawn from this experience with international donors. First, targeted loans lead to a high delinquency. The targeted IDB and World Bank loans register much higher delinquency than the untargeted AID loans. Second, and most importantly, the IDB and the World Bank loan programs did not create the proper incentives to encourage responsible loan recovery effort. Performance requirements

emphasized targeting and, in the case of the IDB, the impact on the income of the borrowers. No signals were given to emphasize a low default rate. No requirements were established to report on the loan repayment status of their portfolios. In the face of this laxness on the part of these two international donors, the Banco Agricola behaved in an equally lax fashion in its loan recovery practices. The recent AID loan program, on the other hand, explicitly emphasized good loan recovery, by requiring low delinquency before new tranches would be released through its rotating fund.

VI. Conclusions and Recommendations

The Banco Agricola has been ill equipped to face the inflationary pressures stemming from the unstable macroeconomic environment of the Dominican Republic in the 1980s. Until recently, its failure to adjust total interest charges to reflect rising inflation eroded the real value of its interest income. At the same time, government and important international donor funds forced the bank through targeting criteria to incorporate high risk clientele into its portfolio, thereby contributing to a high default rate. The lack of economic incentives to become efficient led the bank to stagnate with respect to operational efficiency, technological modernization, and financial innovation. This problem has become most evident in the area of information management, since it is here where banking in general was developing most rapidly during the 1980s. The institution has maintained a highly centralized administrative structure, reflecting the degree of dependence on external sources of credit. Because these distorted financial incentives acted to arrest institutional

development, BAGRICOLA was ill suited to compete in the Dominican financial markets when the access to external funding finally dried up in the early 1980s.

During the past four years the Bank has been forced to wage a highly public campaign emphasizing the liquidity problems faced by the institution in order to obtain funding from the Central Government. Although this strategy has been quite successful in extracting substantial financial support from the Central Government, this campaign has most certainly had a negative impact on deposit mobilization efforts, as well as introducing a high risk, default-prone clientele into the bank's portfolio through targeting schemes.

The Banco Agricola is presently going through a significant institutional transformation. The implementation of deposit mobilization in 1984 as well as the lack of access to external loans from donor institutions has forced the institution to carry out significant internal reforms. During the last several years the Bank has invested heavily in information management, loan recovery, training, and deposit mobilization efforts. In addition, total interest charges on loans were raised from 18 to 30 percent towards the end of 1989, in response to recommendations by Ohio State, the USAID, and the IDB. Although still negative in real terms and somewhat below the commercial bank rates, this reform has allowed the bank to become more competitive in its interest rate structure on deposits.

Although some major reforms have been instituted, the bank has not clearly specified its strategic objectives as a development institution. There is still much confusion as to what the role of a development bank should be, and there continues to be some resistance within the bank itself to change. BAGRICOLA needs to prepare a strategic plan in which its objectives are clearly stated, along with the institutional reforms needed to accomplish these

objectives. The international donor and lending institutions can play an important role in the future development of this institution if they concentrate on supporting institutional reforms, rather than simply providing credit. Emphasis on targeting and impact studies at the beneficiary level must be abandoned, in favor of an overall policy which supports financial self-sufficiency of the institution. The reforms within the institution are not yet deeply entrenched and therefore there is the risk that any policy of international creditors which is not compatible with institutional viability could seriously undermine the gains obtained.

The strategic plan should review the relationship between the Central Government and the Banco Agricola. The bank should no longer be expected to carry out the fiscal role of servicing the agrarian reform programs with which it has been saddled up to now. This fiscal role has seriously undermined the ability of the bank to carry out its primary role of financing national agricultural production. Furthermore, targeted funds to service high risk, default-prone small livestock activities, among others, have introduced an unacceptably high level of defaults into the bank's portfolio. This has contributed to operational losses, weakened staff morale, and compromised financial viability.

The following recommendations should be considered in any new measures to deal with the bank's current state of institutional weakness:

1. Elimate targeting from international donors and the Central Government. These actions introduce moral hazard into the bank's operation (i.e., induces the bank to accept high risk clientele and inculcates lax loan administration since all incentives are to push money quickly at all costs);

2. Change the strategic objective of the bank to emphasize financial viability;

3. Support the bank to develop more appropriate default and arrears measures in a systematic tracking of its medium and long-term loan portfolio to capture installment repayments over the amount actually due, as well documenting deferred payments, and rescheduling of past due loans. Periodic reports on loan repayment status should form the basis for institutional performance;

4. Finance continuing investment in hardware and training in software information technologies so that the bank can systematically track its portfolio to meet the objectives set forth in (3) above;

5. Eliminate all interest rate ceilings on loans and deposits to allow the bank to adjust to an inflationary environment and make appropriate risk-adjusted charges to new or high risk clientele;

6. Encourage decentralization in bank operations so that branch managers can assume more responsibility for loan approvals and rejections. Staff evaluation should then take into account the manager's performance in creating and managing a low default portfolio;

7. International donor funds should enter the bank in such a way as to not discourage local deposit mobilization efforts. This will create a healthier funding base as more local deposits from the general public grow as a proportion of total funding sources;

8. Support the bank in efforts to identify feasible bridge loans where the bank can finance processor-marketing intermediaries rather than farmers directly.

Carefully constructed pilot projects could be tried out to determine which combination of intermediary-farmer network would prove more promising. It is important not to engage in overkill here. The bank should have the freedom to test several posible channels and terminate those that do not work out successfully. This should be a financial experiment to be administered within the capability of the bank personnel and information management system. It should not be a massive program that overloads the system.

9. International donors should protect the bank's institutional viability (and the profitability of farming operations financed by the bank) by pressuring the government to remove interest rate ceilings, agricultural price controls, overvalued exchange rates, and other measures that compromise the financial viability of the bank and the bank's customers. It is important to deregulate price controls on agricultural produces (and overvalued exchange rates) at the same time that interest rates are deregulated so that bank clients can more easily repay higher interest charges.

10. Encourage the government to undertake more efficient prudential regulatory reforms that can reduce the risks of moral hazard in the financial system. More effective bank examination procedures are required, honest and responsible reporting of the risks inherent in the financial management of the country's formal financial intermediaries are necessary along with carefully established rules for risk minimization in portfolio management and sanctions for institutions with unacceptable risk exposure.

As mentioned above, in the last several years BAGRICOLA has begun to undertake promising internal reforms in the face of serious liquidity shortages. The recommendations suggested above could greatly facilitate this process and allow the bank to approach the goal of becoming a more disciplined, self sustaining institution serving a responsible rural clientele of depositors and borrowers.